

**ABSTRACT OF THE DISCLOSURE****Apparatus and Process for Mixing Two Fluids**

The apparatus comprises a first fluid line for conducting an intermittently flowing first fluid and a second fluid line for conducting an intermittently flowing second fluid, the two fluid lines being connected at a junction to a third fluid line, which forwards the two, particularly mixed, fluids. Further, the apparatus comprises a first flow adjuster, inserted in the first fluid line for setting a volumetric or mass flow rate of the first fluid, and a second flow adjuster, inserted in the second fluid line for setting a volumetric or mass flow rate of the second fluid, as well as means for generating a first control signal, representing an instantaneous setting value for the first flow adjuster, and a second control signal, representing an instantaneous setting value for the second flow adjuster. To produce the fluid mixture, the first fluid and the second fluid are made to flow into the third fluid line alternately. The invention is particularly suited for mixing fluids having different viscosities.